

METHOD AND APPARATUS FOR IMAGE PROCESSING

ABSTRACT OF THE DISCLOSURE

[0040] An image processing system processes images via a first processing layer adapted to perform object-independent processing, a second processing layer adapted to perform object-dependent processing, and a third processing layer adapted to perform object composition, recognition and association. The image processing system performs object-independent processing using a plurality of processors each of which is associated with a different one of the pixels of the image. The image processing system performs object-independent processing using a symmetric multi-processor. The plurality of processors may form a massively parallel processor of a systolic array type and configured as a single-instruction multiple-data system. Each of the plurality of the processors is further configured to perform object-independent processing using a unified and symmetric processing of N dimensions in space and one dimension in time. The plurality of processors are formed on a semiconductor substrate different from the semiconductor substrate on which images are captured.

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